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NEW KANSAS FUNGI.

BY J. B. ELLIS AND W. A. KELLERMAN.

MELANCONIS DASYCARPA, E. & K.—Stroma cortical, scarcely exceeding 1 millim. in diam., without any black circumscribing line. Perithecia 3—8 in a stroma, buried in the substance of the inner bark (25—⅓ millim.), their stout rough cylindric-conical ostiola piercing the mostly stellate-cleft epidermis in a little fascicle without any distinct disk. Asci oblong-cylindrical, nearly sessile, 100—115 x 18—20 *u* with imperfectly-developed paraphyses. Sporidia biseriate, oblong-cylindrical, slightly curved, uniseptate, nearly hyaline, slightly or not at all constricted at the septum, 25—30 x 8—10 *u*, with a slightly oblique, stout, hyaline appendage, 16—20 x 3 *u*, at each end. On dead twigs and limbs of *Acer dasycarpum*, Manhattan, Ks., June, 1885, Kellerman, 754. *Stilbospora ovata*, Pers., occurs on the same twigs. This differs from *M. Alni*, Tul. in its smaller stroma, without any of the white substance visible in the disk of that species. The sporidia are also larger than stated in Syll. (18—24 x 5—7 *u*) Specimens distributed in Mycotheca Marchica, have spor. only 15—18 x 5—7 *u*, and appendages only 6—8 *u* long, while specimens from Cooke, though possessing all the other characteristics of *M. Alni*, Tul., have the sporidia 30—38 x 7—8 *u* without any trace of appendages, which may have fallen off or been absorbed In all the specimens of *M. Alni* we have seen, besides the presence of the white grumose-corky substance in the stroma and disk, the perithecia raise the epidermis into little protuberances so as to indicate their position beneath, but this is not the case with the Kansas specimens, besides, the perithecia are perceptibly smaller, and mostly less numerous. For these reasons, and on account of the different host plant, we are inclined to regard it as a distinct species, rather than as a mere variety of *M. Alni*, Tul.

LEPTOSPHÆRIA PYRENOPEZOIDES, Sacc. & Speg.—A *Sphæria*, agreeing well with the description of this species in Michelia I, p. 394, and the fig. in *Fungi Italici* 323, was found on dead herbaceous stems near Manhattan, Kansas, June, 1885. Kellerman, 733. The sporidia, however, remain for some time with only two septa, becoming 3-septate only when fully mature. The specimen in our copy of Mycotheca Veneta 1475, labeled *L. pyrenopezoides*, S. & S., is something else, having oblong-elliptical, 2-nucleate hyaline sporidia 7—8 x 3 *u*,—a species of *Phomatospora.*

SPHÆRELLA LEUCOPHÆA, E. & K.—Perithecia punctiform, minute (70—100 *u*), buried in the substance of the leaf, except their slightly projecting perforated apices. Asci oblong, sessile, or nearly so, 75—80 x 7—8 *u*. Paraphyses none. Sporidia biseriate, fusiform, hyaline, 1-septate, and very slightly constricted at the septum, 18—20 x 3½ *u*. On dead leaves of *Baptisia leucophæa*. Manhattan, Kansas, June, 1885. Kellerman, 752. This is different from *Sphæria baptisiaecola*, Cke., which has shorter asci, mostly not over 55 or 60 *u* long, surrounded at first by paraphyses, and which has also shorter (12—15 x 3½—4 *u*), yellowish sporidia, and belongs in Saccardo's genus *Didymella*.

SEPTORIA MENTZELIÆ, E. & K.—On living leaves of *Mentzelia nuda*. Western Kansas, Aug., 1885. Kellerman, 775. Spots amphigenous, pale, definite, ¼—½ cm. diam. Perithecia immersed, visible on both sides of the leaf, black, about 100 *u* diam. Spores filiform, subundulate, nucleolate, 40—60 x 1¼—1½ *u*.

PHYLLOSTICTA MENTZELIÆ, E. & K.—Occurs on the same leaves, and on similar spots, as the foregoing, and can not, by its external characters, be distinguished from the preceding, unless by its perithecia being mostly *epiphyllous*. The spores are oblong, 5—7 x 2½-3 *u*, or in some perithecia 5—7 x 4 *u*. So far as observed, the Septoria and Phyllosticta do not occur on the same leaf.

GLOEOSPORIUM STENOSPORUM, E. & K.—On living leaves of *Populus monilifera*, Manhattan, Ks., Sept., 1885. Kellerman, 787. Spots amphigenous, dirty gray, round (½ cm.), sometimes confluent, with a darker, scarcely raised border. Acervuli punctiform, round, fuscous, at length collapsing, epiphyllous, but also visible on the lower surface of the leaf, mostly collected in a group near the center of the spot. Spores cylindrical, uniseptate, hyaline, curved, 18—20 x 2½ *u*.

NOTE.—Since the paper on *Gloeosporium*, in the September No. of this JOURNAL (Vol. I) was in print, we have received from Dr. Farlow a fragment of an authentic specimen of *Gloeosp. Castagnei*, Lev. (ex. herb. Castagne). This specimen differs from N. A. F. 1172, so far as we can see, only in the larger acervuli. Possibly the spots are a little more definite, but it is difficult to see any real difference between the spores of this and those of the N. A. F. specimen, which should, doubtless, have been labeled *G. Populi*.

AECIDIUM CALLIRRHOES, E. & K.—Hypophyllous, in clusters ¼—½ cm. in diam. Aecidia at first covered, at length exposed, cup-shaped, pale, margin subentire (⅓ millim.). Spores subglobose, pale, 12—18 *u*. Center of the clusters usually occupied by the spermogonia. On living leaves of *Callirrhoe involucrata*, Manhattan, Ks., June, 1885. Kellerman, 740.

AECIDIUM AMPHIGENUM, E. & K.—Subiculum slightly thickened, and paler. Aecidia collected in suborbicular patches, ¼ cm. diam., at first covered, then open, with a subdentate margin, very short and small, scarcely crowded, standing in about equal numbers on each side of the leaf. Spores subglobose, 22—25 *u*, with a thick epispore. On leaves of *Baptisia leucophæa*, Manhattan, Ks., June, 1885. Kellerman, 748.